

ABSTRACT OF THE DISCLOSURE

a. A plurality of pixel sets, each ^{having} of 16 pixels are vertically provided successively one after another. A vertical transfer path 2 has two groups a and b of transfer electrodes 1a, 1b to 16a, 16b. Two like sequence transfer electrodes in the two electrode groups are provided for each of the pixels in each set. Each pixel is connected via a shift gate 3 to each transfer channel corresponding to each of the transfer electrodes in the electrode group a. To the transfer electrodes in the electrode group a, independent shift/transfer pulse application lead lines 4A are connected for applying independent gate pulses to the individual shift gates in addition to transfer pulses. Common lead lines are connected to the transfer electrodes 2a and 4a, 5a and 7a, 10a, 12a, and 13a and 15a. Transfer pulse application lead lines 4B are connected to the transfer electrodes in the electrode group b. Thus, a CCD imaging device is constructed, which is capable of performing a desired read-out operation by 4-phase driving. The ^A invention realizes a solid-state imaging device capable of reducing the numbers of lead lines for shift gate control gate electrodes for charge read-out to a vertical transfer path and external circuit connection terminals and ~~is~~ capable of a special read-out, such as a multiple rate read-out ^{is realized}